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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,680	09/26/2005	Seungyeol Hong	29953-221698	3077
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VENABLE LLP			CABRERA, ZOILA E	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/550,680	HONG ET AL.
	Examiner	Art Unit
	Zoila E. Cabrera	2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 01 January 1936.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-36 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/26/05.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-36 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-28 of copending Application No. 10/428,036. Although the conflicting claims are not identical, they are not patentably distinct from each other because the organizational elements in both claims and their functionality are merely obvious variations of each other. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to realize that the limitations of claims 1-36 are already included in copending Application No. 10/428,036, as such they are an obvious variation of the invention, defined in the claims 1-28 of copending Application No. 10/428,036.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 7-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimbrough et al. (US 2001/0044668 A1) in view of Hoogerhyde et al. (US 5,448,687).

As for claims 1-2, 3, 10-12, 14-25, 29-33, 35-36, Kimbrough discloses,

1. A method in a computer system for generating an image for producing a design for a container, the method comprising the steps of:

generating a virtual sculptural relief; projecting said virtual sculptural relief onto a virtual container surface, said virtual container surface corresponding to a non-open region of the container ([0003]; Fig. 3); manipulating said virtual sculptural relief in three-dimensional space to provide a virtual projected sculptural relief on said non-open region of said virtual container surface (Fig. 3); modifying a boundary of said virtual projected sculptural relief into a boundary-modified virtual projected sculptural relief by drawing curves on said virtual container surface (Page 2, left col. l. 1-3; [0019], line 4); generating a new virtual sculptural relief from said image; and re-projecting said new virtual sculptural relief onto said non-open region of said virtual container to obtain the design for the container ([0038]; [0018], i.e. create 3D relief from 2D artwork, please note that the image can be edited or modified therefore the new virtual relief may be re-projected on a virtual container as shown in Fig. 3).

2. The method of claim 1, wherein generating the virtual sculptural relief comprises the steps of: creating said virtual container surface; drawing a boundary image on said virtual container surface; and transforming the projected boundary image into the virtual sculptural relief (Fig. 3).

3. The method according to claim 1, further comprising the step of converting said virtual sculptural relief into a numerical control language ([0018]-[0020]).
10. The method of claim 1, further comprising the step of generating a two-dimensional shape prior to the step of generating said virtual sculptural relief, wherein said virtual sculptural relief is generated from the two-dimensional shape ([0018];[0038])
11. The method of claim 1, further comprising the step of transferring said design to a machine code suitable for making a mold ([0003]; [0018]; [0020])

As for claim 12, the same citations applied to claim 1 above apply as well for this claim.

Kimbrough further discloses tooling a mold for the container having the design ([0003];[0018]; [0020]).

As for claims 14-16, the same citations applied to claim 3 and 11-12 above apply as well for these claims.

As for claim 17 the same citations applied to claim above apply as well for this claim.

18. The computer system according to claim 17, further comprising displaying means for displaying the combined virtual projected sculptural relief and virtual container ([0019]; Fig. 3).

As for claims 19-21, the same citations applied to claims 1, 11-12 above apply as well for these claims.

As for claim 22, the citations applied to claims 1, 3 and 18 above apply as well for this claim.

As for claim 23, the citations applied to claims 1 and 11 above apply as well for this claim.

24. The method of claim 23, wherein said molding step comprises at least one of injection blow-molding, stretch blow-molding, and extrusion blow-molding ([0003]).

25. The method of claim 23, wherein said material is a plastic ([0003]).

29. A container having a relief thereon, said relief designed by the method of claim 1 (Fig. 3).

30. A container having a relief thereon, said container made from a mold prepared according to the method of claim 12 ([0025]).

31. A container having a relief thereon, said container made by the method of claim 23 (Fig. 3).

As for claims 32-33 and 35-36, the citations applied to claim 1 above apply as well for these claims.

Kimbrough discloses most of the limitations of claims 1-2 above but fails to disclose some limitations of claims 1-2 and the limitations of claims 4-6, 9 and 34. But Hoogerhyde discloses such limitations as follows:

As for claims 1-2,

flattening said boundary-modified virtual projected sculptural relief into an image on a plane; and flattening said boundary image onto a plane to create a projected boundary image (Abstract).

As for claims 4 and 34, Hoogerhyde discloses, wherein said drawing curves comprises drawing b-spline curves in 3 dimensions (3D) (Col. 5, lines 49-56).

9. The method of claim 1, wherein said manipulating step comprises at least one of rotating at least a portion of said virtual relief, extending at least a portion of said virtual sculptural relief, contracting at least a portion of said virtual sculptural relief, and bending at least a portion of said virtual sculptural relief (Figs. 3-7; Col. 3, lines 45-57).

Therefore, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to combine the method and system of Kimbrough with the computer assisted design system of Hoogerhyde for flattening a 3D surface because it would provide an optimum solution for flattening of a surface region defined by a plurality of parametric surfaces (Hoogerhyde, Col. 2, lines 62-63).

As for claims 7-8, Kimbrough discloses a system and method for producing a three-dimensional image on a bottle or containers manufactured by the dies and molds

including coffee cups, glasses, soda bottles, sport bottles ([0003]; [00025]). However, Kimbrough does not specifically disclose a handle region or a handle and an interior handle surface. But, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to have includes a handle as part of a bottle (such as glasses having a handle) because it would provide a variety of different kind of glasses or sport glasses that are easy to carry.

As for claim 13, Kimbrough is silent as to the step of finishing the mold by hand tooling. However, it would have been obvious to a person of the ordinary skill in the art to have included the step of molding by hand tooling because glass blowing as disclosed by Kimbrough includes hand tooling ([0003]).

As for claims 26-28, Kimbrough discloses that the material may be plastic ([0003]). However, Kimbrough does not specifically disclose the types of plastic such as polyethylene or terephthalate, and that it is selected from one of nylon, polyolefins and polyesters or that the polyolefins are selected from polypropylene, high density polyethylene and low density polyethylene. However, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to use the mentioned plastics to provide a personalized product.

3. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimbrough and Hoogerhyde as applied to claim 1 above, and further in view of DUCT CADCAM systems for Design and manufacture (Pages 3-8).

Kimbrough and Hoogerhyde disclose the limitations of claim 1. Kimbrough further discloses ArtCAM ([0020]). Hoogerhyde further discloses triangulating a virtual image (Fig. 2, steps 60-62; Fig. 5A). However, Kimbrough and Hoogerhyde fail to disclose removing the virtual container surface. But DUCT discloses that by using ArtCAM relief can be superimposed onto existing DUCT models to visualize and machine decorated products (Page 6, ArtCAM) and further discloses that DUCT has the ability to model, trim, blend and fillet sculptured surfaces (Page 6, DUCTstl, please note that by trimming a portion of an image is removed). Therefore, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to combine the system for producing three dimensional relief of Kimbrough with the teachings of DUCT because it would provide a complete and accurate computer representation and subsequent prototype model of any product (Page 6, DUCTstl, last paragraph).

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning communication or earlier communication from the examiner should be directed to Zoila Cabrera, whose telephone number is (571) 272-3738. The examiner can normally be reached on M-F from 8:00 a.m. to 5:30 p.m. EST (every other Friday).

Art Unit: 2125

If attempts to reach the examiner by phone fail, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749. Additionally, the fax phones for Art Unit 2125 are (571) 273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 305-9600.

Zoila Cabrera  
Primary Examiner  
6/11/07

  
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